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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/637,456	08/11/2000	Timothy J. Van Hook	0007057-0013/000123 B S	7981
23600	7590	11/03/2004	EXAMINER	
COUDERT BROTHERS LLP 333 SOUTH HOPE STREET 23RD FLOOR LOS ANGELES, CA 90071			LE, BRIAN Q	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/637,456	<b>Applicant(s)</b> HOOK, TIMOTHY J. VAN	
	<b>Examiner</b> Brian Q Le	<b>Art Unit</b> 2623	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/28/2004 has been entered.

**Response to Amendment and Arguments**

2. Applicant's arguments with regard to claims 1 and 5 have been fully considered, but are not considered persuasive because of the following reasons:

Regarding the rejection of claims 1, 5, and 14-15 under the 35 U.S.C 112 first paragraph, the Applicant amended the limitation (a) (as disclosed on page 6) to overcome the rejection and thus the rejection for limitation (a) is withdrawn. However with regard to limitation (b), the support indicated by the Applicant page 9, line 19 - page 10, line 2 and page 8, line 11-15 merely shows the status entry of data ("words") and not the status entry of memory size. Thus the rejection of this limitation will be maintained. Also regarding to the newly added limitation (f), the indicated support (FIG. 2 and FIG. 3, page 9, lines 5-15, page 10, lines 4-6, 15-21) of the Applicant again does not show the disclosure for this limitation. First, there is no support of status entry indication memory size. The disclosure merely discloses the status entry indication for data information. In addition, there is no support for the usage of status entry indicating memory size to determine whether said tiles need to be decompressed at time of retrieval.

Thus, the rejections of all of the claims are maintained.

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*Drawings*

3. Drawing of Figure 1 filed 05/24/2004 has been accepted and thus the drawing objection is withdrawn.

4. The drawings are objected to because regarding drawing FIG. 2, one skilled in the art does not understand why the Applicant would want to compress a compressed tile (steps 207-208) and would store an uncompressed file (step 209). The Examiner does not see the improvement of this processing. The Applicant needs to clarify this subject matter. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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*Specification*

5. One skilled in the art does not understand the disclosure of FIG. 2, steps 207-209 on page 9, first paragraph of why the Applicant would want to compress a compressed tile (steps 207-208) and would store an uncompressed file (step 209). The Examiner does not see the improvement of this processing. The Applicant needs to clarify this subject matter. Appropriate correction is required.

*Claim Rejections - 35 USC § 112*

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 5, 14 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not show the “setting said status entry for each of said tiles in said tile format table, wherein said status entry **indicates the memory size of each of said tiles after compression, with a full size indicating a non-compressed tile.**” (Emphasis added). Also with regard to limitation (b) (page 5 of the remarks), the support indicated by the Applicant page 9, line 19 - page 10, line 2 and page 8, line 11-15 merely shows the status entry of data (“words”) and not the status entry of memory size. Thus the rejection of this limitation will be maintained. Also regarding to the newly added limitation (f), the indicated support (FIG.

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2 and FIG. 3, page 9, lines 5-15, page 10, lines 4-6, 15-21) of the Applicant again does not show the disclosure for this limitation. First, there is no support of status entry indication memory size. The disclosure merely discloses the status entry indication for data information. In addition, there is no support for the usage of status entry indicating memory size to determine whether said tiles need to be decompressed at time of retrieval. Also to claims 14 and 15, nowhere in the specification shows the "status entry further indicates the validity of data in said tile".

### *Claim Objections*

8. Claims 1 and 5 are objected to because these claim's language (limitation (f) as disclosed page 5 of the remarks) does not reflect the support indicated by the Applicant (FIG. 2 and FIG. 3, page 9, lines 5-15; page 10, lines 4-6, 15-21). Appropriate correction is required. The prior art rejection based on the Examiner's best understanding.

### *Claim Rejections - 35 USC § 103*

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-8, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bhargava U.S. Patent No. 5,471,248 and Jung U.S. Patent No. 5,805,226.

Regarding claim 1, Bhargava teaches a method of compressing data in a graphics processing system (column 2, lines 15-23) comprising:

Defining a plurality of tiles of data (column 2, lines 32-36);

Defining a tile format table (FIG. 13 A), containing a status entry (header information) for each for each of said plurality of tiles (column 10, lines 10-17);

Setting said status entry for each of said tiles in said tile format table (column 13, lines 30-45), wherein said status entry indicates the memory size (the compressed information and image change information) of each of said tiles after compression, with a full size indicating a non-compress tiles (column 2, lines 50-53 and column 6, lines 53-67);

Storing said compressed tile in a memory (column 4, lines 20-22 and column 16, lines 22-25, 30-37).

Retrieving said tiles from said memory whereby said status entry indicating memory size is used to determine whether said tiles need to be decompressed at time of retrieval (buffer receiver and hold code representation of tiles by a comparison process) (column 12, lines 49-67).

Bhargava does not teach the concept of determine the selection of the compressed tile if the compressed tile is smaller than the uncompressed tile. Jung discloses a method of encoding (compress) blocks of video signal included frames that divided into blocks (tile) (Abstract, first 4 lines) and determining (FIG. 2, element 400) whether to select (FIG. 2, 500) the compressed tile (FIG. 2, element 300) over the uncompressed tile if the compressed tile is smaller than the uncompressed tile (column 4, lines 62-67 and column 5, lines 1-2). Modifying Bhargava's method of compressing data in a graphics processing system according to Jung would able to choose the smaller data size between the compressed and uncompressed tile to reduce the

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information contained in the video signal and thus free the bandwidth (column 5, lines 17-22).

This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Bhargava according to Jung.

For claim 2, Bhargava teaches a method wherein said compression is lossless (Huffman) (column 13, line 14 and FIG. 12, element 120).

Referring to claim 3, Bhargava discloses the method wherein each of said tiles comprises a cache line (A computer inherently has a cache line) (column 8, lines 50-55).

Regarding claim 4, Bhargava teaches the method wherein tiles read from said memory are decompressed (FIG. 6 and column 8, lines 62-67) when said status entry (header information bit) indicates that said tile is a compressed tile (FIG. 13 A).

Regarding claim 5, please refer back to claim 1 for the explanation.

For claim 6, Bhargava teaches the method wherein each compressed tile is compressed using one of a plurality of compression methods (Huffman) (column 13, line 14 and FIG. 12, element 120).

Regarding claim 7, Bhargava teaches the method wherein each compressed tile includes a value identifying the compression of said plurality of compression methods used to compress said compressed tile (FIG. 13 A and column 7, lines 50-60).

For claim 8, Bhargava teaches the method wherein each tile is comprised of pixels having pixel color components (RGB pixels) (column 8, lines 15-16 and column 12, lines 10-15).

For claims 14 and 15, Bhargava further teaches the method wherein said a status entry further indicates the validity of data (data calculation) in said tile (column 7, lines 44-47).



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***Allowable Subject Matter***

11. Claims 9-11 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Contact Information***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL  
October 20, 2004



**SAMIR AHMED**  
**PRIMARY EXAMINER**